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AUTHOR Parpart, M. Leslie
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ABSTRACT

Gifted students represent an under-served population in the education system, especially at the middle school level. These students require special attention in regard to their social and emotional needs. The first section of this paper explores the literature pertaining to the education of gifted middle school students and the definition and role of cluster grouping. It begins with an overview of the need for gifted education and then discusses specific models of organization including tracking, ability grouping, and cluster grouping. The second section of the paper summarizes the field research done in a specific sixth grade class where the cluster grouping model is in place. The information gathered from the literature review joined with what was observed in the field, provided some information on specific barriers found in successfully meeting the academic needs of gifted students within the regular classroom. (Contains 25 references.) (Author/ND)

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Cluster grouping students in the regular classroom:

Barriers to success

M. Leslie Parpart

The Curry School of Education

University of Virginia

May 1995

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Abstract

Gifted students represent an undeserved population in this country's education system especially at the middle school level. These students require special attention in regards to their social and emotional needs. The first section of this paper explores the literature pertaining to the education of gifted middle school students and the definition and role of cluster grouping. It begins with an overview of the need for gifted education and then discusses specific models of organization including tracking, ability grouping, and cluster grouping. The second section of the paper summarizes the field research done looking at a specific sixth grade class where the cluster grouping model is in place. The information gathered from the literature review joined with what was observed in the field, provide some information on specific barriers found in successfully meeting the academic needs of gifted students within the regular classroom.

Introduction

Today's schools have a very difficult task facing them each day--they must educate the diverse population of students who enter their buildings every morning. Each child represents a unique and distinct challenge to today's educators. "A teacher's responsibility is not to teach the content. A teacher's responsibility is to teach the students, and to make sure that all students learn new content every day" (Winebrenner, 1992, p. 1). With the reduction in funds for gifted education programs and the current trend toward inclusion for all students, more and more regular classroom teachers are being called upon to meet the needs of the gifted within the framework of the regular classroom. For some teachers and students, this situation fosters learning and discovery; for others, it represents too great a challenge. In this situation both the students and the teachers are left unfulfilled.

One proposed solution to ease the burden on regular classroom teachers and to better address the needs of the gifted population is the notion of "clustering" or grouping the gifted students together within a regular classroom. This practice is being tried by school districts across the country and has been the subject of a good amount of theoretical writing. Does this structural configuration meet the needs of the gifted? More specifically, are there barriers in a regular classroom that inhibit addressing the academic needs

of gifted students? This explores these and other questions about gifted education. The first section of the paper reviews the literature on ability and cluster grouping as well as middle school education. The second portion of the paper looks at a specific sixth grade team that is heterogenous with two cluster groups of gifted students.

Review of the Literature

The Need for Differentiated Education for the Gifted

Introduction and Overview

Every child who walks into a school brings with him or her special and unique educational needs. Many of these qualities can be handled within the realm of a regular classroom; however, there is a segment of the population whose special needs go beyond what can be addressed by the regular curriculum. The most obvious portion of this population are the students who have academic or physical disabilities. Our schools have attempted to address the needs of these students for a long time, and now federal legislation ensures that these students have an appropriate education in the least restrictive environment possible.

The students who have not had their needs adequately addressed are the ones at the other end of the spectrum--gifted students. These students represent a significant under-served population in our schools. These students lack challenge in their academic experience and have a previous mastery of what is taught in the regular classroom (Westberg, Archambault, Dobyns & Salvin, 1993). This lack of a quality educational experience is due in large part to one of the fundamental principles of our education system--equality. Our public education system was established to produce an educated citizenry who ensures the success of the newly formed republic. Because the system was designed to provide individuals with a basic, equal educational background, equality was an original hallmark of American education. The notion, however, of what constitutes an equal education has long been debated. Is it fair for students of differing ability levels to receive the same education? Thomas Jefferson, an individual who wrote extensively on education and the concept of equality, wrote, "nothing is so unequal as the equal treatment of unequal people." Furthermore, is it in the best interest of our country to neglect the students who excel at a young age? These are the questions that educators must deal with on a regular basis. Understandably there has been a lot of debate on how to best educate all of America's young, especially the highly-able learner, in our democratic society. Those who advocate special

programming for the gifted understand and are sensitive to this debate. Colangelo and Davis (1991) assert, "Ambivalence toward gifted education has contributed to an ebb-and-flow pattern in its development for at least the last 50 years....A core difficulty in thinking clearly about meeting the educational needs of gifted youngsters is that providing such special opportunities runs counter to the idea of a democratic or egalitarian society" (p.3). The question is then how to educate the gifted within the democratic framework of American society.

What Should Gifted Education Look Like?

There does remain some debate within the education community as to whether or not gifted students do in fact need a "different" education; however, educators feel the needs of these students should not be overlooked. "Gifted students have distinctive educational needs that require special programs" (Ford, Russo, Harris, 1993, p.8). Among educators who are sensitive to the needs of the gifted, the debate shifts on a continuum from a discussion of whether gifted education should occur to what gifted education should look like in practice (Slavin, 1990). While there is considerable discussion over what actual form a gifted program should take, the one constant is that it must provide students with an educational experience distinct

from the regular curriculum (Shore, Cornell, Robinson & Ward, 1991). The most agreed upon way to accomplish this goal is to differentiate the curriculum of the gifted, since the notion of constructing something different underlies all of the special programming that exists for gifted students. In general, "differentiation is a method of instruction utilized by a teacher to structure the learning environment for the maximum development of individual communication skills" (Cornette & Bartelo, 1980, p.2). The U.S. Office of Education's Office of the Gifted and Talented presents a definition of differentiation for use by educators:

> Differentiated education or services means that process of instruction which is capable of being integrated into the school program and is adaptable to varying levels of individual learning response in the education of the gifted and talented and includes but is not limited to:
>
> (1) A differentiated curriculum embodying a high level of cognitive and affective concepts and processes beyond those normally provided in the regular curriculum of the local educational agency;
>
> (2) Instruction strategies which accommodate the

> unique learning styles of the gifted and talented;
>
> and
>
> (3) Flexible administrative arrangements for instruction both in and out of school, such as special classes, seminars, resource rooms, independent study, student internships, mentorships, research filed trips, library media research centers and other appropriate arrangements. (USOE, 1976, pp. 18665-18666)

There are numerous ways in which differentiation can and is implemented in classrooms across the country. Specific programming examples which attempt to provide students with a differentiated academic experience include magnet schools, pull-out programs, honors and advanced placement classes, schools-within-schools, as well as programs working within the framework of the regular classroom. The exciting yet difficult task for educators is to provide gifted students with an academic experience that is different and challenging. For the education community, this itself is a challenge and the source of a tremendous amount of debate. "What is needed is curricular transformation as distinct from curricular transportation. This

major distinction involves all manner of related changes in program and curriculum including those that are part of the general enjoinder to bring about qualitative differences" (Shore, Cornell, Robinson & Ward, 1991, p.96).

Gifted Education in the Regular Classroom

With the current trend in education calling for the inclusion of all students within a regular classroom, the field of gifted education focuses on how to provide adequately for gifted students in this setting. According to Westberg, Archambault, Dobyns and Salvin (1993): "Nearly all gifted and talented students in this country spend most of their school day in the regular classroom" (p.122). This statistic necessitates that educators of the gifted examine ways in which gifted students can have their needs met within the regular classroom. As gifted students do spend the majority of their educational time in a regular classroom, it makes sense to do what can be done for them in this setting. In addition, school resources are limited. Thus, working within the framework of the current school setting is practical and realistic, especially for schools with no existing gifted program. Many gifted educators believe that much of what is needed for the gifted can be accomplished in conjunction with the standard school offerings (Keirouz, 1993).

While providing for students with special needs in a regular class is not always easy, it can prove to be successful for both the students and the schools. There a variety of examples of how the needs of gifted students are attempting to be met in regular classrooms (Westberg, Archambault, Dobyns & Salvin, 1993, p.122). This academic setting is where gifted students usually find themselves, and it is where their needs should be met. Not only are these students in regular classrooms the majority of the day, they deserve a differentiated educational experience the majority of the day, the week, and the year. Too often a school district's gifted program has the students participating in enrichment activities outside the framework of the curriculum for a few hours each week. This set up does not fully meet the needs of highly able learners. "To ensure that gifted learners receive an appropriate and relevant education, they must have the option of participating in a full five days of differentiated curriculum rather than provisional pullout 'programs', resources rooms, grade skipping, or acceleration" (Ford, Russo, Harris, 1993, p.11). It is thus the challenge for education to address and provide a differentiated academic experience for gifted students within the confines of a regular classroom.

Middle School Philosophy and Gifted Education

Introduction of Issues and Environment

As mentioned previously, the major point of discourse on the subject of gifted education centers on the form of curriculum and specific gifted programming. More specifically, the debate fixes on how differentiation should look within the setting of a regular classroom. The design of elementary schools grants teachers the flexibility both in curriculum and environment to meet numerous differing needs within one room. While this does not always adequately meet the needs of all students, a workable framework is present within the elementary school structure. At the high school level, students are usually able to peruse specific fields of study on higher levels through honors or advanced placement courses as their interests and abilities dictate. The middle school level presents the greatest challenge in meeting the needs of gifted students. "It is the perennial plight of gifted learners that academic standards appropriate for their age-mates are often underchallenging for them" (Tomlinson, 1994, p.177).

Early adolescence is a time of great change in the lives of children. The middle school philosophy was developed with these social and emotional changes in mind to help students deal with the natural ups and downs faced on

the road to adulthood (Coleman and Gallagher, 1995). Middle schools were established to ease the sometimes traumatic transition from childhood to adulthood with the focus being on treating each student as an individual (Tomlinson, 1992). This philosophy has been played out in a variety of organizational arrangements across the country, but there are a number of consistent themes found underlying these structural differences. This list includes the following: a child-centered program, creative exploration, belief in oneself, student self-direction under expert guidance, student responsibility for learning, student independence, interdisciplinary teaching, focus on the individual, and students learning at different rates (Tomlinson, 1992).

> In fact it is at the core of middle school philosophy that middle school exists to deal with a wide range of physical, social, emotional, and intellectual maturity, and that no one strategy, plan, or practice will be adequate to deal with this population which at any given moment ranges from socially adept to socially clumsy, physically mature to physically immature, emotionally steady to emotionally turbulent, and intellectually astute to intellectually dormant (Tomlinson, 1992, p. 208).

Expectations and Academics

On the surface the goals and focus of middle school education appear to be in line with many tenants of gifted education. Where, then, is the conflict? Beyond some obvious philosophical similarities there are significant points of conflict between these two sections of education. One point of contention centers on how much should be expected of middle schoolers academically. There is some debate among educators about the capacity for academic growth in the years of early adolescence. Many educators feel that middle schoolers should focus their attention on their social and emotional growth, and teachers should have limited academic expectations for these students. Middle school teachers and researchers from Duke University and Johns Hopkins University, however, attest that gifted middle schoolers not only grasp complex concepts and subject material, but crave it (Tomlinson, 1992). To hold these students back academically in favor of forcing them to conform to a specified middle school curriculum with a focus on social and emotional development is a disservice to these learners. In addition this practice is contradictory to the premise of the individualization of middle school education where the needs of the individual both academically and socially profess to be addressed.

Organizational Issues

Another significant point of conflict between middle school and gifted philosophies centers on the organizational structure of middle schools. A basic component of the middle school philosophy is that the best organizing structure for these students is heterogenous grouping based on ability levels (Tomlinson, 1994; Cornette & Bartelo, 1980). Proponents of the middle school philosophy contend that it is only through heterogenous grouping that all students have the access to the best social and intellectual education possible (Sicola, 1990). While this paper will take up the complex debate over grouping later, it is important to mention grouping has its place in middle school education. Advocates of gifted education contend that high ability learners need to be with their intellectual peers to facilitate personal and academic growth. "An effective way of dealing with the needs of students who have been ready for challenges which remain beyond the grasp of age-mates has been grouping high ability students in settings with appropriately differentiated curricula to address their learning needs and with teachers trained to administer these curricula" (Tomlinson, 1992, p.216-17).

This notion runs counter to the premise of middle school education that students as a whole learn better when heterogeneously grouped with their social peers. For some gifted students, being isolated from their intellectual

peers who have similar needs can lead to feelings of isolation and frustration which can result in poor social skills and neglect by peers (Sicola, 1990). "Educators of gifted students strongly agree that gifted students benefit from being grouped together, for at least part of the day, while middle school respondents disagreed" (Coleman & Gallagher, 1995, p.48). There is the need for gifted students at the middle school level to interact with both their social and intellectual peers.

Uniting Gifted and Middle School Needs

Middle school philosophy focusing on heterogeneity and social development has created a situation where the very things that are suggested to help the majority of middle school students actually worked to the detriment of the gifted students. This conflict between fields has been a significant stumbling block in dealing with gifted students at the middle school level. There is hope, however. Coleman, Gallagher, and Howard (1993), looked at the differences between middle school and gifted education and profiled five middle schools where gifted education is an integral component of the schools' structure. One encouraging aspect of the study was a survey completed by both regular and gifted educators at the middle school level that resulted in the following areas of agreement:

(a) the regular middle school curriculum will not challenge gifted students;

(b) some aspects of the programs for gifted students would benefit others;

(c) programs for gifted students do provide emotional support;

(d) middle school teachers need more preparation to work with gifted learners;

(e) little collaboration currently takes place between gifted and regular education; and

(f) program evaluation needs to be strengthened" (p.iv).

Determining points of agreement between gifted and regular education is a key component in beginning to meet the needs of gifted students at this age-level.

The other very encouraging portion of this study was its detailed profiles of examples of schools where the middle school philosophy and gifted education compliment each other. The study found "that it is possible to blend appropriately differentiated services for gifted students into schools operating within an authentic middle school paradigm" (p.v). One of the keys to ensuring that gifted education works at the middle school level is flexibility. "The flexibility characteristic of a well balanced middle school actually promotes both academic and affective development as individual needs are

appropriately recognized and met" (Sicola, 1990, p.46). The goals of these two areas of education are the same--meeting the needs of middle school aged students considering their cognitive and affective development equally (Fielder, Lange, Winebrenner, 1992). And while there are points of disagreement, the research produced on this topic give reason to believe that gifted students can have their academic and emotional needs met in this environment.

Ability Grouping

Inclusion, Tracking, and Other Practices

In education today a consistent belief is that all students should be instructed within the confines of a regular classroom. This educational theory, more commonly referred to as "inclusion," calls for differentiating the curriculum for all students. Inclusion dictates that one teacher should be able to address the diverse needs of all of her students through differentiating content, process, and product (Maker, 1982). In reality, it is very difficult for one individual to do so much for so many.

This model of educational practice developed as a reaction to the practice of "tracking." Tracking places students on a particular academic track for full-time instruction according to their demonstrated abilities on

standardized tests and their perceived abilities derived from observations (Fielder, Lange & Winebrenner, 1992). The reality of this system is that once students are placed on a specific track, there is little deviation for them. Hence, from a very young age, serious and lasting decisions are made about a student's potential for achievement (Slavin, 1990). The general "concern is about the negative effects of locking certain students into unchallenging classes and locking them out of educational situations that stretch their minds" (Fielder, Lange & Winebrenner, 1992, p.4). Research has shown that this practice is very harmful to the majority of students as there is little movement between tracks (Fielder, Lange & Winebrenner, 1992). The resulting effect is that the fate of a student is decided early on in his academic career and virtually no deviation from this set course is possible.

The practice of tracking has also produced a very unequal situation in education where the students on the college bound tracks receive the best resources, materials, and teachers. "Consistent placement in the low track clearly leads those students to disenfranchisement in a class system where there are clear differences between the 'haves' and the 'have-nots'" (Fielder, Lange & Winebrenner, 1992, p.4). With tracking's negative effects, many educators, especially those in middle school education, propose a trend in the opposite direction--complete heterogenous groupings. This situation dictates that

students of differing ability levels be placed within a single classroom with a single teacher who differentiates the proscribed curriculum to meet all of the needs of his or her students. "[Reformers] have also suggested that grouping be replaced by mixed-ability classrooms in which whole group instruction and cooperative learning are the major instructional delivery systems. In many cases, this restructuring has eliminated accelerated classes and enrichment programs for the gifted and talented in the name of reform" (Rogers, 1991, p.5). This system of organization runs completely opposite to tracking; students are not grouped by their abilities and therefore receive little individual consideration.

Grouping students solely on the base on age and not grouping them by ability has a number of problems itself. The teacher is expected to prepare and present a curriculum that is academically appropriate for all of the students in his class. In most cases, the individual teacher does not have the time, energy, or resources to adequately meet the needs of the gifted while providing for the diverse needs of the remainder of the class (Willard-Holt, 1994). The reality becomes that instructors pick a middle ground and teach from there making some modifications for the students of lower abilities and assuming that the high ability learners will take care of themselves (Devlin & Winebrenner, 1991). "The teacher explains that she has so much to do with

average and low students that she has been unable to provide anything for the more able students" (Westberg, Archambault, Dobyns & Salvin, 1993, p.136). While attempting to meet the social needs of all students and make the educational experiences of these students equal, heterogenous grouping does not create an environment that fosters academic growth in the gifted.

How Should Gifted Education Respond?

Gifted education has found itself in somewhat of a difficult position in regard to grouping of students. In general, the educational community agrees that rigid tracking is harmful to the majority of the population. However, research illustrates that gifted students learn better and more when they are with their intellectual peers in special classes and accelerated programs (Tomlinson, 1994). "While the learning of struggling students may be enhanced by placing them in heterogeneous groups, the learning of gifted students may be compromised, since the differentiated opportunities they need are very difficult to provide in such a setting" (Winebrenner, 1992, p.125). In addition, a synthesis of the work of Kulik & Kulik, Vaugan, and Slavin by Rogers (1991) reports that,

> "while full-time ability grouping (tracking) for regular instruction makes no discernible difference in the academic

> achievement of average and low ability students, it does produce substantial academic gains for gifted students enrolled full-time in special programs for the gifted and talented....Ability grouping for enrichment, especially when enrichment is part of a with-in class ability grouping practice or as a pull-out program, produces substantial academic gains in general achievement, critical thinking, and creativity for the gifted and talented learner" (p.2).

A solution, as mentioned above, is the concept of ability grouping as opposed to a rigid tracking system. Ability grouping differs from tracking (Rogers, 1991). The commonly held notion of ability grouping involves the re-grouping of students together in order to provide instruction aimed at a common ability level (Fielder, Lange & Winebrenner, 1992). Students are not locked into a group; the goal is to place students with others whose needs are similar for as long as necessary (Fielder, Lange & Winebrenner, 1992). "...Experts in the field of gifted education do not necessarily support a rigid tracking system; meeting the needs of gifted students in the lest restrictive environment, though is a priority. Flexibility permits heterogenous grouping of most students and homogenous grouping of gifted students in the area(s) of their giftedness" (Sicola, 1990, p.44). Grouping students for at least a part of

their instructional time appears to benefit all students, as all students are able to interact with their intellectual peers as well as their social peers.

Ability grouping however, is not a comprehensive solution. For many, it simply represents a more euphemistic term for tracking as it seemingly provides little in the way of benefits for the average student. Studies have concluded "that bright students improve their performance in separate classrooms and within classroom programs, but that comprehensive ability grouping has little or no effect on achievement of the general student population" (Shore, Cornell, Robinson & Ward, 1991, p. 85). While there are some benefits from putting students together, it is what happens in these groups that is the key element. Grouping does not trigger academic gains; it is what goes on within the group that does (Rogers, 1991). A more specific look at alternatives to tracking and ability grouping is to focus on generating ways to accommodate differences within classes using an expanded idea of ability grouping (Slavin, 1990). The basis of cluster grouping encompasses the idea of ability grouping and takes it a step further.

Cluster Grouping

There is a definite need to provide gifted students with an appropriate education without compromising the education of the general population. "All students are entitled to educational opportunities that allow them to learn at a level commensurate with their ability" (Winebrenner, 1992, p.128). There are reasonable and vocal objectives at all levels of education about grouping, especially at the middle school level; however, cluster grouping is one alternative that works well with the middle school philosophy. The premise behind cluster grouping is that students in a particular grade are grouped by age and ability. The students in this grade who are identified as gifted are placed together in one heterogeneously grouped class. This organization is especially important at the middle school level where scheduling conflicts are a reality and appropriate socialization opportunities are a necessity (Cornette & Bartelo, 1980).

The focal point of the cluster grouping model is that the students receive all of their instruction within their regular class (Hoover, Sayler, Feldhusen, 1993). This structure allows a teacher to tailor instruction to a small group of students instead of a single student or pair of students (Winebrenner, 1992; Rogers, 1993), as attempting to meet the needs of a

range of abilities is very difficult (Devlin & Winebrenner, 1991; Winebrenner, 1992). A cluster group is usually composed of three to six identified gifted students who are gifted in the same area who are intentionally placed with a specially trained teacher. (McInerney 1983; Devlin & Winebrenner 1991; Winebrenner, 1992; Rogers, 1991). It is important to keep the cluster to a relatively small group. If there are more than six identified students within a particular grade, another cluster should be formed and placed within another class (Winebrenner, 1992).

Beyond having the gifted students together within a classroom, the teacher charged with their instruction must be willing and prepared to instruct them. "Much of the success of cluster programs depends on how the classroom is organized and the abilities of the teacher. A classroom in which group instruction is the norm is simply not a good place for gifted students and a cluster is likely to do little to change that. If the classroom is essentially individualized, the cluster model will be more successful" (Eby & Smutny, 1990, p. 147). If students are clustered but there is no change in the teacher's instruction, then the students do not derive any benefit from being clustered. It is crucial to cluster gifted students but to provide them with instructors who have the skills to differentiate their curriculum effectively.

Positive Aspects of Cluster Grouping

Teachers report many positive benefits to the cluster grouping model. Among these are the success of small group work, individual and group projects, and the ability to develop the thinking skills with specific activities geared toward the cluster group (Hoover, Sayler, Feldhusen, 1993). "The practice of cluster grouping represents a mindful way to make sure gifted students continue to receive a quality education at the same time as schools work to improve learning opportunities for all our young people" (Winebrenner & Devlin, 1991, p.2).

Cluster grouping allows for gifted students to interact with their intellectual peers on a daily basis while maintaining direct contact with their age level peers. There are positive reports of the relationships between the cluster group and the remainder of the class. (Hoover, Sayler, Feldhusen, 1993). This practice benefits the social and emotional development of the gifted students by providing them with contact with students like themselves who have similar abilities and interests (Parke, 1989). Gifted students are not isolated with each other and they benefit from their interaction with students of all ability levels (Hoover, Sayler, Feldhusen, 1993). A negative perception of gifted students, arrogance from constantly being the smartest student, nearly disappears when there are a number of very bright students together within a

class (Winebrenner, 1992). In general, the gifted receive the message that while there are others like themselves in the world; they gain a more accurate view of their own abilities (Parke, 1989). The gifted students also receive the benefit of not missing the instruction and work done in the regular classroom-a liability of pull-out and resource programs (McInerney, 1983).

There are benefits for the regular students as well. "New academic leadership emerges" among the rest of the students within the class as well as in the other classes in a particular grade (Winebrenner 1992, Fielder, Lange & Winebrenner, 1992). Another benefit of cluster grouping is the presence of higher expectations for all students. Many teachers also report higher levels of achievement by all students in classes with a cluster of gifted students (Devlin & Winebrenner, 1991; Hoover, Sayler, Feldhusen, 1993; Winebrenner, 1992). Cluster grouping also allows for the flexible grouping of all of the students within the classroom (Hoover, Sayler, & Feldhusen 1993). Students who are not formally identified can be included with the cluster for activities in their areas of strength, and more students with high level needs are served than might be if the gifted students were pulled out and served in a resource room (Hoover, Sayler, Feldhusen, 1993). In addition students who are a part of the cluster can receive more instruction on topics in which they are weak. "Cluster grouping of gifted students allows them to learn together while

avoiding permanent grouping arrangements for children of other ability levels." (Devlin & Winebrenner, 1991, p.1). One of the major advantages of this instructional set-up is the flexibility it affords the teacher in organizing instruction for all students.

A final positive aspect of cluster grouping is the financial benefit (Winebrenner, 1992). Many school districts lack the financial resources to provide a complete instructional program for their gifted students. Cluster grouping requires very little in the way of additional monetary support while providing gifted students with a full-time educational program. Few additional personnel are needed for its implementation (Cornette & Bartelo, 1980).

> Cluster grouping provides gifted students with something their parents have always been told the district could never afford: a full-time gifted program. Every day these students are in a situation where a trained teacher is compacting the curriculum and providing appropriately challenging learning experiences. It becomes a regular occurrence instead of a rare opportunity (Winebrenner, 1992, p.129).

School districts are able to afford to provide their students with the full-time educational experience that they need.

Drawbacks of Cluster Grouping

While the cluster grouping model seemingly provides a workable solution for educators concerned with tracking as well as gifted educators who advocate full-time differentiation for gifted students, there are some significant potential barriers to this model being completely successful. In order to have a successful cluster grouping situation within a school, the instructors who are responsible for the grouped students need both training and institutional support. Districts have to pay to have their current instructors educated or recruit new faculty members who already have received instruction in gifted education. In addition, district personal are needed to establish and coordinate the gifted program, once again requiring more funding. Specifically the teachers need training in higher level thinking skills and curriculum planning (McInerney 1983; Hoover, Sayler, & Feldhusen, 1993). Teachers must receive special training and have high expectations placed upon them by their supervisors who ensure that they are consistently using their special skills within the classroom (Devlin & Winebrenner, 1991).

In addition to needing direct support from personnel within the school or district, there must be a high level of expectations on the part of the supervisors of the teachers of the gifted (Devlin & Winebrenner, 1991; Tomlinson, 1994). "Obviously, state of the art curriculum for high-ability

students involves much work from dedicated professionals. A team approach is necessary. No one person can carry such a great weight on his or her shoulders. Ongoing staff development is also a necessity" (Keirouz, 1993, p.39). There needs to be a commitment from the entire district to provide a successful gifted program based on the cluster grouping model.

Teachers need access to material resources as well as direct consultation as they plan for and implement curriculum for the gifted (Hoover, Sayler& Feldhusen, 1993). "The teachers who receive the cluster groups must be trained to teach them the way they need to be taught. Furthermore, their cluster program must be supervised by whomever serves as the gifted education coordinator to ensure that consistent differentiation is available" (Winebrenner, 1992, p.121). While many school districts do require that the teachers who have the clusters of gifted students have additional training, not all do. "When one considers that most regular classroom teachers have no training and no experience in the field of education of the gifted, demanding that they institute provisions for able students within their heterogeneous classrooms becomes even more of an absurdity" (Borland, 1989, p.144). The regular classroom teachers cannot be expected to do everything for the gifted students within their classrooms no matter the extent of their own training and backgrounds. The commitment and involvement from the remainder of the

staff in the district and the resources that they can provide for the gifted students are crucial to the success of the gifted students.

Beyond having qualified instructors, another barrier to the successful implementation of this model is the tremendous work that it requires of the regular classroom teacher (Hoover, Sayler & Feldhusen, 1993). Teachers then need adequate planning time and must devote classroom time to the direct end of providing an appropriate learning experience for the cluster group (Rogers,1991). Another significant drawback to the cluster grouping model is the preparation and willingness of teachers to actually differentiate curriculum. It is a very time consuming and sometimes difficult process to even put together a curriculum that is differentiated-not to mention implementing it in a diverse classroom. In addition, individualizing curriculum requires that teachers alter the way in which they customarily teach and requires flexibility (Willard-Holt, 1993). In general, there is a "lack of teacher skill and comfort with designing and implementing curriculums that are concept-based, problem-oriented, student-centered, and multi-intelligent" (Tomlinson, 1995, p.68). Teaching gifted students provides its own unique challenges separate to the scope of a regular classroom experience, for this reason the teachers of gifted should desire to work with gifted students and have to background to do so.

Another significant issue facing the teachers of cluster groups is managing the range of activity that must occur.

> Classroom management becomes a problem as heterogenous classes stretch the resources of the teacher already doing her best to provide an education for 25 or more young adolescents in a short block of time. Raising the expectations of the teacher to meet the needs of all 25 or more young adolescents at all levels of ability in the same amount of time is an impractical request, even if they are categorized into five or six different ability groups (Sicola, 1990 pp.45-46).

Management is especially difficult at the middle school level where student learning styles are quite varied (Cornette & Bartelo,1980). Large class sizes in general provide a very large challenge to effectively differentiating content and instruction (Tomlinson, 1995). "Differentiating instruction in classrooms inhabited by 25-35 preadolescent gives new definition to the word 'challenging.' Unless administrators encourage differentiated classrooms through monitoring of teacher plans and practices, it is likely that the comfort of continuing instruction with a single content, process and product focus will be irresistible to many teachers" (Tomlinson, 1994, p.181). As teachers design instructional plans for teaching within a cluster grouped environment,

frequent decisions have to be made about when to allow the cluster to work independently and when to do whole class instruction. The reality is that it is very difficult to always have the cluster group doing something different from the rest of the class. The planning for the individual teacher is very difficult.

In addition there are definite challenges in managing a class, especially at the socially active level of middle school, where so many different things are occurring. The question is how often and when should the cluster have completely differentiated work and how much differentiated material is enough to ensure that the needs of these students are being met? Unfortunately, these questions are the most crucial, yet the most understudied. "What seems reasonable is to allow teachers the flexibility to determine which lessons lend themselves to heterogenous cooperative learning groups and which to homogenous cooperative learning groups and make professional decisions to place students accordingly" (Fielder, Lange & Winebrenner, 1992, p.7).

While the overall expectations for all students are raised in a cluster grouped environment and many students benefit from exposure to gifted students, there is a definite chance that someone is going to be left out. In some cases a teacher may become focused on the gifted students to the neglect of the others; however, the more common experience is that teachers tend to concentrate on students who are academically deprived as the gifted students

tend to do more for themselves (Tomlinson, 1994). The main idea of cluster grouping is that no one's needs are neglected or left out. Unfortunately, there is the potential for just the opposite to happen with this instructional framework. In reality, it appears that many teachers look for a common ground on which to base instruction. In many cases, "Even the most conscientious teachers realize that they cannot completely meet the needs of all their students. Most, however, try to do the greatest good for the greatest number by gearing their instruction to the middle of the ability continue and attempting to include as many students in each direction as possible" (Borland, 1989, pp.143-144). The worst case scenario is the situation where instead of expectations being raised for everyone, expectations for the gifted students are lowered in order to fall in line with the majority of the class. "Gifted learners...are the one group for whom instructional expectations would likely fall in heterogenous settings. In this setting, they are the group for whom curriculum is 'dumbed-down'" (Tomlinson, 1994, p.178). In many cases, teachers were unable to get to the gifted students during the school day (Hoover, Sayler & Feldhusen, 1993).

There is some debate about how great the range of ability levels should be within a class which houses a cluster group of gifted students. McInerney (1983) and Winebrenner (1992) suggest not having the lowest students and

those with mental and emotional disabilities if possible within a class with the cluster of gifted students as it would put too much pressure and work on the individual teacher. Willard-Holt expresses this view more strongly:

> Some administrators mistakenly believe that gifted students require no special efforts on the part of the teacher. In an effort to be fair in distributing students with exceptionalities, they assign a number of students with varying levels and types of learning difficulties to the same classroom as a group or cluster of gifted students. This creates an extremely diverse classroom and places an undue burden upon the teacher to meet needs. Such a situation makes meeting the needs of gifted students very difficult. The administration needs to be informed that such inequities predestine failure (p.45).

The demands that are placed on regular classroom teachers are great. In addition the needs of the students who inhabit their classrooms are also large. Teachers must work constantly to address the needs of all students including those who are gifted. As these students present specific challenges, unique solutions are necessary. One possible solution, cluster grouping, has been discussed extensively in theory, but there has only recently begun to be

an examination of how it works in practice. The next section of this paper explores cluster grouping within one classroom.

Field Research

Introduction

"Gifted learners need some form of grouping by ability to effectively and efficiently accomplish several educational goals, including appropriately broadened, extended, and accelerated curricula....The pacing of instruction, the depth of content, and advancement in knowledge fields, which these students must have, cannot be effectively facilitated without a variety of ability grouped arrangements" (Rogers, 1993, p.12). Based on the premise that gifted students at the middle school level need something beyond the standard heterogenous grouping promoted by the middle school philosophy, the research of this paper looks at the model of cluster grouping. While this situation is offered as a potential solution to a complex problem there are some specific barriers to successfully addressing the academic needs of the gifted within the regular classroom, and the research described in this paper focuses on some of them.

Population Studied and Teacher Background

The research for this project was done with gifted students placed in a heterogenous sixth grade language arts and social studies block. The gifted program for this school district is based on complete inclusion which forces the regular classroom teacher to meet the needs of those students identified as gifted, within the context of a "regular" classroom using the concept of cluster grouping. The school system is located in a rural community in western Virginia where there is only one middle school serving almost 500 students. The gifted students are cluster grouped together in a regular classroom within a particular class or classes in each grade.

There are 160 sixth grade students, 21 of whom are identified as gifted. Nine of the students are identified in language arts, eight are identified in mathematics, and nine are identified as having general intellectual aptitude. (Five students are identified in both language arts and mathematics.) The classroom teacher is responsible for making content modifications for those students who are identified in his or her subject area as well for any student who is identified as having general intellectual aptitude. The gifted students in the sixth grade are divided up into two homerooms on one of the sixth grade teams. (The sixth grade is structure such that there are three teams of teachers

with two teachers on each team, one instructor teaches language arts and social studies while the other teaches mathematics and science.) This division results in having eleven gifted students in one homeroom and ten gifted students in the other homeroom. Since the instructional design employed by the teacher is the same for both classes, observations were done with both classes.

The teacher observed in this school is in her sixth year of teaching sixth grade language arts and social studies. The teacher holds a bachelor of arts degree in education, as well as a gifted endorsement. She demonstrates deep interest and concern for the educational experiences of gifted students. The teacher's personal view is that not all gifted students receive what they need from their schooling and are often overlooked. In preparing to instruct a large, diverse class, the teacher makes an attempt in the construction and implementation of lesson plans to differentiate for the gifted students. In addition to planning separate activities and content for the gifted students, the teacher gives prior thought to questions to ensure that they challenge all students.

The teacher feels that there are a number of advantages to the cluster grouping model. The regular and low-ability level students benefit from having the gifted students in the classroom as higher expectations are present for all students in this setting and it also forces the students to learn to work

with and interact with others of all ability levels. However, there are some limitations to the success of this model of instruction including, having the time to work with all of the students. The teacher reports that on many days she is unable to devote time to working directly with cluster group. In addition there are a few students who would really benefit from experiences beyond even what a differentiated education within a regular classroom provides. Other drawbacks to this educational structure include the lack of classroom space, resource help, and planning time, and the diversity of ability levels of the students. All of these factors contribute to the inability of the teacher to adequately address and meet the needs of all of the students within the class.

Methodology

In order to look specifically at one classroom where cluster grouping is in practice, I wanted to spend time observing the activities of this class. Because I had previously spent eight weeks student teaching in this classroom, my presence in the classroom was not a distraction to the students or the teacher. Before I began actually observing in the classroom, I interviewed the teacher. Although we had previously discussed many aspects of gifted

education and cluster grouping, I felt that her feelings and attitudes were a major part to this study and should be formally included in this project.

Four scheduled and one unannounced observations lasted a duration of 50 to 70 minutes each. Daily events and anecdotal information were recorded during observations. Time spent in specific task categories per group were tracked. Potential barriers discussed in the literature were used as criteria for documentation. This list includes: the size of the class, the cluster size, the teacher's background and training, the means of differentiation, teaching time and focus, student participation, and issues of classroom managements.

Findings

Class and Cluster Size

The size of the classes and the clusters remained constant for all of the visits. The first block includes 25 students with a cluster of ten gifted students. The second block includes 27 students, with 11 gifted students in a cluster. Both of the blocks are divided into groups for reading. The clustered students make up group A. The students at or above grade level form group B, and those students who are below grade level are in group C. In social studies the students do work in these ability groups as well as in heterogenous

groups. In general the students sit with the members of their group, but they are allowed to choose their own seats within their group and to choose their own seats within the room when they are not doing specific group work. The size of these clusters are higher than those recommended by the literature, and each cluster includes significant variations in the ability levels of the student. Research suggests that to provide an effectively differentiated curriculum it would be beneficial to divide these groups up and have cluster groups on more than one team.

Teaching Training, Support, and Expectations

A constant factor observed was that the same teacher instructed both blocks, assisted three days each week for an hour by an instructional aid. Research also suggests that the regular teacher in a cluster situation be supported by other school personnel and have high expectations set for them by their supervisors. There is not, however, any in-school resource help in this school.

A number of the students within these classes appear to need challenges beyond what is provided. In her own estimation, the teacher feels additional help in developing appropriate learning experiences for some of the gifted students would be beneficial. Clear and high expectations from supervisors

would ensure that the educational needs of the gifted are met. At this school it is somewhat unmeasurable within this setting. The school system does have an individual who is in charge of the identification process and overseeing the curriculum; however, it appears that most of the actual work is done by the individual teachers at their discretion. While the teaching training and background in this situation were in line with suggestions in research, the outside help and supervisor expectations are not what they should be if the cluster situation is to truly be successful.

Instructional Organization

During the course of five visits, I observed this classroom for a total of 300 minutes. The breakdown of this time and how it was spent is outlined in the following table. During each visit events and corresponding times were recorded. From this record, categories were coded according to how the gifted students spent their time: time spent with the cluster group, time spent on individual work, time spent on whole class instruction or discussion, and miscellaneous time which includes transition time and time for organizational requirements.

Visit	Minutes	Time with Cluster	Time on individual work	Time with whole class	Misc.
1	65	20	20	15	10
2	55	15		40	
3	60	10	10	35	5
4	70		20	35	15
5	50		35	15	
Totals	300	45	85	140	30
Percentages		15%	28%	47%	10%

The majority of the gifted students' time was spent involved in whole class activities. This figure is derived from only five visits; however, the percentage of time spent on whole class activities is almost 50% of the gifted students' instructional time. The time spent within the cluster group is closer to the amount of time recorded for miscellaneous activities than to either whole class or individual work time. The district program policy calls for differentiation within the cluster, yet only 15% of time on five separate days was devoted to work in this framework. These observations are in line with what has been observed in other studies. "The Classroom Practices Observation Study" of 1993 found that gifted students spent the majority of their day within the confines of whole class instruction. They worked individually for only 12% of the time and in small groups for only 13% of the

time and they received instruction in homogenous groups for only 21% of the time (Westberg, Archambault, Dobyns & Salvin, 1993).

Summaries of Observational Visits

For the purpose of these summaries, the cluster group of gifted students will be referred to as group A, the students of average ability levels will be referred to as group B, and the students of lower ability levels will be referred to as group C. Through five classroom visits a variety of instructional methods with both the cluster group and the entire class were observed. One specific example illustrative of the differentiated that is occurring within this class follows. Students were divided into their reading groups, and the teacher began the period working with the cluster of gifted students. During the first twenty minutes there was evidence of content differentiation (reading a different book from the rest of the class), process differentiation (reading and completing the accompanying work with individual choice and pacing), and product differentiation (individual development of projects according to reading). The teacher received outside help for group C in the form of an aide who took the members of this group to another location. This situation alleviated some of the problems possible when all of the students are in the same room.

The significant observable problem with this set-up was the fact that when the teacher was not working with a particular group, the members of these other groups tended to be off-task. A number of students did virtually nothing during the entire period devoted to language arts. Another problem was a lack of involvement of all of the students as seen when the class was brought together for whole class instruction. Only once did anyone from group C offer an answer, and it was incorrect.

Another visit provided a look at another way to differentiate while still having the whole class doing primarily the same thing. The lesson began with a lecture/discussion combination as the teacher attempted to have the students attain some of the desired knowledge of Roman architecture on their own. Only students from groups A and B provided responses to the teacher's questions. It is significant to note that differentiation of information came in the form of what the students provided rather than in what they received. A clearer evidence of differentiation came in the activity that followed the lecture and discussion. The teacher had the students work in small groups--all of the cluster group were divided into smaller groups together--to find information about a specific Roman architectural advancement. The assignment was open-ended to allow the gifted students deeper investigation into a topic in a short amount of time. The limitation with this activity, and an overall problem, was

the fact that the students in group C and some of those from group B had a difficult time grasping what they were supposed to do. Confusion in presentations by groups B and C students to the class illustrated this point.

The purpose of another lesson observed was to introduce the students to the next novel they would be reading. The teacher used the whole-class teaching model for the instruction of this activity. The introduction involved eliciting student responses to questions on paper and then discussing answers as a class. Students from each group volunteered, since these questions were opinion, and based on the students' own lives. The second portion of the lesson called for students interpreting a poem. Here pacing became a problem as the students in group A and, to some extent, group B, came up with ideas quickly and were able to participate in the discussion. The students were given time at the end of the period to do group work.

A combination whole-class individually structured day was observed. The period began with a whole-class discussion on the chapters they had finished, with responses coming from students in groups A and B. The class then read the next chapter together and were instructed to continue reading on their own. Some of the students in group A were finished quickly and were ready to move on; the students in group C were barely able to began reading before students in group A begin to make noise and disrupt the class.

The final visit found the students once again reading from their novel. At this point, the teacher was getting ready to divide the class up into their groups to complete their reading and project work. The need to provide a quicker pace for some of the students was evident, as a number of them had finished what they were supposed to be reading during the period, before the teacher even assigned it. The teacher brought the class together for a discussion after everyone had finished some reading, but everyone was not at the same point, and this made discussion difficult. The final portion of the period was reserved for individual journal writing.

Analysis

Based upon these limited and informal observations, it is clear that these students spend the majority of their instructional time involved in whole-class activities. In some cases this proved to be beneficial to all of the students in the class. According to the teacher, the expectations for all students in these classes were higher than in other classes, and the gifted students benefited from the social interaction with their age peers. The drawbacks, however, were more pronounced. The students in group C derived little benefit from their exposure and interaction with the cluster group

of gifted students. The members of group C did not regularly volunteer to answer questions or participate in whole-class activities. In addition, they appeared to have trouble following class discussions, especially when they were required to take notes.

The whole class activities appeared to be best suited to group B, who appeared to be challenged by the questioning and pace of instruction. They were able to follow the pace and add to discussions. As mentioned previously, those in group C had difficulty in following the discussions and rarely participated. The members of the gifted cluster group followed the discussions when they wanted to and appeared to understand exactly what was being discussed. Some of the gifted students were always involved, but others tended to tune in and out as they saw fit.

The management of the cluster group was one that was discussed repeatedly in the literature, and was found to be a problem issue within this classroom. Two contributing factors were the small room and the large number of students housed within it. Students in both groups B and C appeared to be significantly distracted when the teacher worked with a particular group and had trouble getting work done when the teacher was not directly working with them. The students in the cluster group were not distracted by the other groups; however, they were good at distracting

themselves. Overall this did not present as great a problem, since the gifted students seemed to be able to do more than one thing at a time.

One barrier that was not explored in much detail in the literature was the problem of pacing. When students were allowed to completely work on their own, this was not a significant issue; however, within the regular classroom setting, a majority of the students' time was spent in whole class activities. In this situation, the gifted students often complete their assigned tasks before the other students began to understand theirs.

Implications

From research in the literature and observations in the classroom, cluster grouping for gifted students appears to be a relevant issue. There is the possibility that cluster grouping can have a positive impact on the learning of gifted students. Teacher training is crucial in ensuring that the needs of the gifted students are met within the regular classroom. Teachers who have specific training know how to best meet these needs in this diverse setting. School districts should require that teachers who are the primary instructors for gifted students are certified in differentiation techniques. Teachers should be allowed to choose to work with this population rather than be assigned, as

their are unique challenges found in working with this group. This factor was the base of the strongest indication in favor of differentiated education of gifted students in this particular classroom. A positive element in this class was the diversity of ways the teacher attempted to meet the needs of all students. Complex skills and abilities are required to plan engaging sense-making activities for all students all of the time, and only when teachers develop them can they ease the burden on themselves. Although in this class a relatively small amount of time was spent in activities exclusively designed for the cluster group, these students were allowed to participate in whole class activities within their cluster.

One of the greatest drawbacks in the classroom observed involved the high number of students within the clusters. Literature suggests that cluster groups be no more that six students. Cluster groups held ten and eleven students in the class observed. The needs of the students in cluster groups become too complex to be met by one teacher. Dividing these groups up would potentially impact the educational experiences received by these students.

Another factor that was highlighted by the observational visits was the actual amount of time the students spent within their cluster groups. The main purpose of cluster grouping is to include gifted students in the regular

classrooms; however, there is also the understanding that differentiated content, process, and product will be occurring for the gifted students with the cluster grouping. The observations in this study yielded that gifted students were only doing work with their intellectual peers 15% of the time. This finding is supported by other studies as well. A 1993 study by The National Research Center on the Gifted and Talented found that gifted students in the regular classroom found themselves in heterogenous groups for 79% of their instructional time and 84% of the activities which gifted students were involved in were not differentiated (Westberg, Archambault, Dobyns & Salvin, 1993). While this study included districts that both did and did not have specific programming for gifted students, it illustrate the point that gifted student in the regular classrooms are not receiving differentiated experiences.

With a class containing a wide range of ability levels, especially at the middle school level, the challenge to maintain student interest and involvement is great. When the gifted students worked within their cluster or independently they were able to produce on their own. On the other hand, the students in groups B and C had great difficulty working on their own as they were often distracted by what was going on with the other groups and they had trouble focusing on their work when the teacher was not working directly with them. In some cases it was as if the teacher had lost a complete day with the

students in group B and C if they had to work independently. Another related issue is that of pacing. Since the students are within a regular classroom, there is the assumption that some of the instruction will be in the form of whole class. In this particular classroom, class discussion were difficult. In order for the gifted students to be mentally engaged, the questions had to be on a higher level. When this did happen the students in group C were left out, and the opposite happened when the discussions were such that these students could follow. During lessons that the teacher had the students do group work as a part of the information gathering process, the gifted students were finished before the regular students even know what they were supposed to do. Finally when the teacher had students do individual work after a class lecture or discussion, there were always a few students who finished before most students had a chance to really begin. Once these students were done, their need to move on disrupted the work of the other students.

A final serious question that is often raised in research is the question of who actually benefits from the cluster grouping model. Gifted students befit from the interaction with their age level peers. In this class the gifted students are not resented by their peers and overall they appear to be a well adjusted group. The students in group B, the average students, benefit from being placed with the gifted students. The expectations for them and the level

of content are higher than what would be found without the gifted students. The benefits for the students in group C in the classroom are fewer. They derive little benefit from the academic interaction with the gifted students, and there needs are often overlooked in this environment. Finally the needs of the gifted themselves are not completely met through this model of instruction. The time spent working within the cluster is less then half of their instructional time during a regular school day. The amount of differentiation that is occurring while measurable, is not significant.

Conclusion

There are a number of further research questions inherent in the designing and implementation of gifted programs. Researchers need to look more closely at how enhanced a student's social and emotional growth are by being in a heterogenous classroom full-time, and then determine how much of their academic needs are actually met in this setting. There is the notion that cluster grouping does not meet the needs of the gifted students, and this idea needs to be explored further.

> "...[T]here is very little to recommend full-time heterogenous grouping for gifted students. Attempts to meet the needs of the

> gifted in the regular classroom do little or nothing for them. In fact, since these pretenses allow schools to point to their 'programs' for the gifted without really addressing the needs of gifted students, they may impede actual progress toward providing special education for students with special abilities" (Borland, 1989, p.145).

The parent's view needs to be assessed as many parents view cluster grouping as positive as their children are supposedly receiving a full-time educational program. Parents need to look at whether or not the education that their children are receiving is truly different. Student views within the class with cluster groups also need to be addressed. Are there social and emotional benefits, especially for the gifted? And finally there needs to be some research done to compare the results of pull-out and inclusion.

Regular classroom teacher are faced with a lot within the confines of their four walls. They need the background to work with all students as best they can, but they also require the resources and support to address the needs of those students whose needs are beyond the bounds of the normal curriculum. It is my recommendation that gifted programs that employ the cluster grouping model also have resource teachers full-time within their

schools in order to truly make an effort to meet the needs of this population. "Despite several years of advocacy and efforts to meet the needs of gifted and talented students in this country, the results of...observational stud[ies] indicate that little differentiation in the instructional and curricular practices is provided to gifted and talented students in the regular classroom" (Westberg, Archambault, Dobyns & Salvin, 1993, p.139). Providing students with a full-time gifted educational experience is of great importance, and ensuring that it is in practice what it is on paper is the key to successfully educating the gifted students in this country.

Appendix A
Teacher Interview

1. What role do you believe differentiation plays in your classroom?
It is important. The kids need it as these kids are overlooked. You need to start from where they are.

2. On a typical day do you believe that you make an attempt to differentiate your curriculum and instruction to meet the needs of the gifted students in you classroom?
I do make an attempt in my lessons plans and my questions as I give forethought in order to come up with separate content and activities for the students. There are days where you don't get to do something for everyone and I still don't think that they get all of what they need.

3. How or what would you change to meet the needs of your gifted students?
I would love a pull-out program for the random needs of some of the students so that when I couldn't meet their needs they would have a place to go and a teacher to work with. I don't think that a pull-out program by itself is entirely good, but it can be beneficial. I do feel that there is a difference between the high ability and the gifted, and in some cases I have bright kids clustered with the gifted and I have to differentiate additionally within the larger group.

4. What do you see as the advantages/disadvantages of the cluster grouping model?
Advantages:
The gifted students need to learn to work with kids of all abilities as this is the reality that they are going to face. In addition the gifted students help to keep the class going and stimulate the other students. Overall the expectations for all of the students are high.

Disadvantages:
It seems as though someone is always not getting their needs met. Some days it is the lower kids while on others it is the gifted, and it seems as though we are always forgetting those in the middle. Overall I don't have time for them in class or for planning. It is difficult to try and meet all the needs within the class on a day-to-day basis.

Appendix B
Observation Summaries

Visit 1--February 24, 1995

The language arts block begins at 9:10 with a transition period from social studies to language arts that lasts about five minutes. During this time the teacher explains the different activities that the students will need to complete during the language arts block on this particular day. The students are divided into their groups for reading, and they are sitting with the students who are in their group. The activities and the pacing for the different groups are differentiated. All of the students are reading The Cay. The teacher begins the period working with the gifted students, group A, in one corner of the room facing the rest of the class. Group B is instructed to finished their reading and continue working on their preassigned assignments. Group C is waiting for the aide to come in order to complete their reading.

The teacher instructs group A to get out all of the work that they are doing with the book in order to take inventory as to where they all are. The cluster begins discussing the work they have done and goes over their project ideas. The teacher wants to know what they are doing for their projects and when they anticipate completing them. The students are encouraged to expand

upon and develop their ideas. Five minutes into the block group A, who is working with the teacher is on task, while the other groups have about fifty percent of their members on task.

As the teacher continues to review project ideas with group A, the members of group C have done little to no work. It is obvious that they are unclear as to what they are supposed to do. At 9:25 the aide arrives and takes group C out of the room to complete their reading for the day. This leaves the cluster group working with the teacher, and group B, the average to above average students, to work on their own. While the cluster is very involved with the discussion that the teacher is conducting with them, the members of group B are at various points of being on task. A couple of the students have done no work, and one student is very intent on what is going on with the cluster group.

At 9:30, 15 minutes into the language arts period, group A continues to discuss their reading and still only half of group B is actually completing their reading and written work. This group has a number of things to work on if they complete their reading and it does not appear that any of them have completed their initial assignment. For the next 10 minutes the students in both groups appear to be somewhat settled into what they are doing. There is little talking going on among the students, and the members of group B no

longer appear to be overly distracted by the activities of group A.

Once the teacher is finished working with the cluster at 9:40, the teacher has spent about 20 minutes working with this group, the teacher leaves them with some questions to think about and instructs them to complete any outstanding language arts work. The teacher then begins a transition time between working with the cluster group and group B. She begins assessing where the students are in group B are in their reading and encourages them to complete it. While she is focusing on the work of group B, about half of the cluster group have begun to work on their own. There does seem to be a fair amount of talking among the students during this time, and this may be due in part to the fact that the students have their choice of seats within their groups.

At 9:45 group B is doing silent reading, the majority of group A is talking, and a couple of students have done nothing to this point. It is at this time that group C returns to the room. They were with the aide for 20 minutes at a location outside of the regular classroom. The teacher discusses their progress with them and instructs them to complete their language arts assignments. One student enters the room on her own and the teacher talks with her to determine where she has been.

The teacher continues to work with different members of group C while groups A and B appear to be on task. The chatting that is observed seems for

the most part related to students answering questions for each other about what they are supposed to be doing and helping each other with questions that have arisen. However, a few students are obviously not talking about their work. One thing that the observer notices is the fact that many of the students in group A are able to complete their work while carrying on some conversations with their follow group members. There are still two students in this group who have done nothing since the teacher left them at 9:40 and the majority of group B is no longer reading. There are a few students who expressed concern about not being able to finish who are currently carrying on a conversation about movies. The teacher is now floating around the room to check the level of on-targetness among the students.

By 10:00 the teacher is ready to begin going over the language arts assignment. The class now shifts from group work to whole class instruction. The teacher hands back some writing papers and brings the class together in order to review their work from the previous day on the parts of speech. The teacher calls for volunteers to answer. Students from groups A and B offer answers. The students in groups A and B appear to be following along while only two students in group C appear to know what is going on with the class. One of these students offers an answer that is incorrect. The majority of students in group C are writing notes, having pencil wars, or are doing other

work.

The period is drawing to a close and a number of students begin to pack up in preparation to leave. The teachers stops them and lets the class know that they will finish going over the work the next day.

Visit 2--March 3, 1995

During this visit I witnessed a social studies lesson where the students were grouped as a whole class for a discussion on Roman Architecture. This lesson starts at 8:30. The teacher begins the discussion by having the students recall famous architectural landmarks they have studied during the year. The teacher receives a few responses, but the students have difficulty generating the number of responses that she expects. Mrs. Jones regroups and restates her questions. She receives additional responses from members of group A and B and encourages the students to justify and explain their answers and probes deeper for higher level responses.

The teacher continues her lecture adding on to the responses she receives from the students. The teacher is writing information on the overhead and the students are instructed to take notes. The questioning at this point is centering on "what" questions, which lead up to a series of comparison questions. During this line of questioning only students from groups A and B

respond. The majority of students are taking notes and some of the regular students are very involved in what is going with the discussion. The same few students seem to be volunteering answers throughout the discussion.

At 8:45 the majority of students are paying attention and are up with the class discussion. The teacher has constructed this lesson such that the information she wants to get across to the students is coming from their responses to her questions. The questions that the teacher asks include comparing life in ancient Rome to life today and speculating about the motivation that people in this time period had for their actions. Students from groups A and B continue to be the ones who are responding.

Some of the members of group A are not engaged with the discussion and no one from group C has offered any responses. The course of this lesson seems well suited to the students in group B. The members of group A seem to follow the discussion easily with some of them appearing to be bored and uninterested. The members of group C as a whole appear to be concentrating on getting the notes down, and they are not a part of the flow of information.

At 9:00 the teacher stops the note taking and tells the students that for the next ten minutes they will have time to look through resource books in their room for specific architecture advances in Rome. The students are currently sitting with their groups and are instructed to work with those they

are sitting with on this activity which allows the cluster students to work together. Each group is supposed to take notes on how something was made, what it was used for, and then make a short presentation to the class. The teacher monitors the time for the class as time progresses. Some students are having problems getting everyone in the group involved with the activity. Group C is having significant problems in that they are unable to decide which architectural advancement to study. One section of the room made up of students from group B are not doing any work. The two groups made up of students from group A are able to get right to work and need not further explanation. These students are very into the assignment and are eagerly looking through the books and coming up with information to report. The teacher goes to the other three groups and re-explains the assignment in order to get them going. One of the B groups is also doing very well.

At 9:15 the teacher has the groups report what they have found. One of the groups made up of students from group A, but the teacher has to stop their presentation in order to bring group C into the discussion. They are unable to repeat what the first group presented. Both A groups and one B group present and do a very good job. Both the A groups present information that is new to the teacher. One group of students from group B does not complete the assignment. The students in group C split up because of internal

conflicts. One of the students from group C attempts to do a person and the other portion of the group does nothing. They had a hard time understanding what was written in the books much less combining it and synthesizing it into their own words. The social studies period ends at 9:25.

Visit 3–March 8, 1995

As the language arts block begins today, the teacher is catching up on what has gone on the past two days in her absence. At 9:30 the teacher introduces the new book that all of the students will be reading. The instruction method today is whole class. She begins the lesson by presenting the students with some questions to think about and discuss before they actually begin reading. These include: (1) Should parents decide what their children will do when they grow up? (2) Do parents sometimes know what is best for their children? (3) What would you do if your dreams/wishes were different from your parents' and if you weren't allowed to follow your dreams? The students immediately begin giving responses and get a little out of hand. The teacher explains that she wants individual answers not discussion. The students are told to write down their thoughts for five minutes and then they will discuss them as a class.

At 9:43 the teacher checks in on their progress and allows a couple of

additional minutes of time to work with the discussion beginning at 9:45. For the ext ten minutes the class reports their individual opinions. A variety of students are involved with the discussion as students from all groups volunteer answers. There is definitely a difference in the answers given by the students from different groups. The responses from members of group A are full of solid content with reasoning and examples. Those from group B tend to be rather concrete. There is somewhat of a problem with student behavior during the discussion. A number of times the teacher has to stop a speaker in order to bring the class back together. A positive aspect of all of the talking that is going on is that a number of students are giving their opinions to those seated around them including many students who usually do not participate.

The next portion of the lesson involves the students listening to and interpreting the poem entitled, "Our Heroes". The teacher puts a copy of it on the overhead and then reads it to the students. The students are to write down their own thoughts as to the meaning of the poem. The poem is read at 10:03 and the teacher begins the discussion at 10:06. She asks for response from the class and gets them from members of groups A and B. All follow-up questions are handled by students from the cluster group. This assignment allows for all of the students to do some interpreting on their own level. Pacing seems to be a problem. The members of the cluster group are done

before the other students even understand what they are supposed to be doing.

The teacher then puts a series of words on the overhead and temps the students to decide what the novel is about they are beginning. The students are able to pull together the words and come up with the basic plot and setting for the story. The teacher then formally introduces the novel. At this point in the period, the teacher allows students to work on a writing project.

Visit 4--March 16, 1995

This day's class, which begins at 9:15, is structured such that it is a whole class discussion. The students are not required to sit in their groups, although the majority of the students are sitting among student who would be in their group. The entire class has begun reading the novel, The Banner in the Sky, by James Ramsey Ullman. The class reviews the chapters that they have read. The teacher asks probing questions to go beyond the basic surface answers that the students offer at first. The majority of the students are involved and participating. Students from both the A and B groups are responding, but it is rare if any student for group C volunteers an answer. The students in groups A and B seem to respond well to each other's answers and build about others' responses.

The lesson continues with a review of chapter three of the book. The

teacher returns to the initial questions that she presented the students with at the beginning of the book, and wants to know if any students have re-evaluated their responses. These questions are more opinion related and do evoke responses from students of all levels, but only one student from group C volunteers to answer. The teacher does not call on anyone who is not volunteering to answer.

At 9:40 the class begins reading chapter four of the novel as a class with different students assigned parts and the teacher reading the prose portions. At the conclusion of reading this chapter, they begin chapter five as a group and then the students are told to finish the chapter on their own and to answer questions for the chapter. She does tell the students if they have trouble reading on their ow that she will come and read with them. Overall the students appear to be reading on their own.

The teacher places the questions for the chapter on the overhead at 10:05. Although the questions are the same for all students, there is a range of questions with varying levels of difficulty. At 10:08 the first students are finished with the reading, and by 10:15 a number of students are completed. At this point the level of chatter has greatly increased in the room although all of the students are not done. The students in group C who are not finished appear to be bothered by the environment now which includes a lot of talking

and movement.

The teacher instructs the students to put down their reading at 10:20 in order to view the presentation of some skits that the students have been working on the past several days. After the class is over, the teacher explains to me the overall framework of this unit. The unit is structured such that all of the students do the pre-reading activities and begin the book, which is on a seventh-eighth grade reading level, together. After reading the first several chapters the class will once again be divided up into groups and their activities and goals will be different.

Visit 5--March 23, 1995

The class is set-up so that whole group instruction is occurring. The students are sitting in seats of their choice including the cluster group, but the majority of students are sitting within their reading group. The class begins at 10:20 with the teacher passing out the books from which they are reading. The teacher then assess where the students are in their reading and instructs them to finish reading chapter eight and those who are already done can move on to the next chapter. A number of the cluster group are finished and begin reading the next chapter. By 10:30 all of the students are reading. At 10:35 one student is completely done with the assigned reading and the teacher

instructs him to begin answering the chapter questions.

At 10:45 the teacher brings everyone together for a discussion. Not all of the students are finished reading, and there are varying degrees of participation among the students. The discussion shifts from recalling the facts of the chapter to a discussion of value judgements made by the main character and returning to some of the questions that they began the book discussion. At 11:00 the teacher instructs the students to create a conflict chart in their reading in notebook comparing the main characters' conflicts. Before beginning the teacher reviews with the class the different types of conflicts that are present in literature. These answers are provided by students from group A. Beginning next week the students will be divided up into groups to complete their reading of this book. The lesson ends at 11:10 with a transition to social studies.

References

Borland, James H. (1989). Planning and implementing programs for the gifted. New York, NY: Teachers College Press, 142-145.

Colangelo, Nicolas & Davis, Gary A (1991). Handbook of Gifted education. MA: Allyn and Bacon.

Coleman, Mary Ruth, & Gallagher, James J. (1995). Middle schools and their impact on talent development. Middle School Journal, 26, 47-56.

Coleman, Mary Ruth, Gallagher, James J. & Howard, Judith (1993). Middle school site visit report: Five schools in profile. North Carolina University, Chapel Hill: Gifted Education Policy Studies Program.

Cornette, James H. & Bartelo, Dennise M. (1980). Structuring a differentiated language arts program for the highly able reader in the middle school. Maryland: State Department of Education.

Devlin, Barbara & Winebrenner, Susan (1991). Cluster grouping fact sheet: How to provide full-time services for gifted students on existing budgets. Lombard, IL: Phantom Press.

Eby, Judy W. & Smutny, Joan F. (1990). A thoughtful overview of gifted education. White Plains, NY: Longman.

Fielder, Ellen D., Lange, Richard E., & Winebrenner, Susan (1993). In search of reality: Unraveling the myths about tracking, ability grouping, and the gifted. Roeper Review, 16, 4-7.

Hoover, Steven M., Sayler, Michael, & Feldhusen, John F. (1993). Cluster grouping of gifted students at the elementary level. Roeper Review, 16, 13-15.

Keirouz, Kathryn, S. (1993). Gifted Curriculum: The state of the art. Gifted Child Quarterly, 16, 36-39.

Kulik, J., & Kulik, C. (1990). Ability grouping and gifted students. In N. Colangelo & G. Davis, Handbook of Gifted Education. Needham, MA: Allyn & Bacon.

Maker, June (1982). Curriculum development for the gifted. Austin, TX: Pro.Ed.

McInerney, Claire Fleischman (1983). Cluster grouping for the gifted. The bottom line: Research-based classroom strategies. St.Paul, MN: Line, Inc.

Parke, B.N. (1989). Gifted students in regular classrooms. MA: Allyn and Bacon, 52-53.

Rogers, Karen (1993). Grouping the gifted and talented: Questions and answers. Roeper Review, 16, 8-12.

Rogers, Karen (1991). The relationship of grouping practices to the education of the gifted and talented learner. Connecticut: National Research Center on the Gifted and Talented.

Shore, Bruce M., Cornell, Dewey G., Robinson, Ann, Ward, Virgil S. (1991). Recommended practices in gifted education. Columbia, NY: Teachers College Press.

Sicola, Pamela K. (1990). Where do gifted students fit? An examination of middle school philosophy as it relates to ability grouping and the gifted learner. The Journal for the Education of the Gifted, 14, 37-49.

Slavin, Robert, E. (1990). Ability grouping, cooperative learning and the gifted. Journal for the Education of the Gifted, 14, 3-8.

Tomlinson, Carol Ann (1992). Gifted Education and the Middle School Movement: Two Voices on Teaching the Academically Talented. Journal for the Education of the Gifted, 15, 206-237.

Tomlinson, Carol Ann (1994). Gifted Learners: The Boomerang kids of middle school? Roeper Review, 16, 177-182.

Tomlinson, Carol Ann (1994). Making middle schools work for gifted kids. Principal, 74, 52-53.

Willard-Holt, Colleen (1994). Strategies for individualizing instruction in regular classrooms. Roeper Review, 17, 45.

Winebrenner, Susan (1992). Teaching gifted kids in the regular classroom. Minneapolis, MN: Free Spirit Publishing Inc.

Westberg, Karen L., Archambault, Jr., Francis X., Dobyns, Sally M., & Salvin, Thomas J. (1993). The classroom practices observation study. The Journal for the Education of the Gifted, 16, 120-146.